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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/705,575	11/03/2000	Ernest L. Lawton	1596C9	6944

7590                    07/31/2003

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[REDACTED] EXAMINER

GRAY, JILL M

ART UNIT	PAPER NUMBER
1774	17

DATE MAILED: 07/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/705,575	LAWTON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jill M. Gray	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 13 May 2003.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-3 and 6-37 is/are pending in the application.
- 4a) Of the above claim(s) 12-17,26-31 and 35-37 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3,6-11,18-25 and 32-34 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### Remarks

Claims 1-3, 6-11, 18-25, and 32-34 are currently under prosecution per the election of species requirement in Paper No. 12.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 18-21, 24-25, and 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Pollet et al, 5,024,890, 5,312,687, and 5,387,468 (hereinafter referred to collectively as Pollet), for reasons of record.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 6-11, 22-23, and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pollet et al, (cumulative), as applied above to claims 1-2, 18-21, 24-25, and 32-33, in view of Barber, Jr. et al, 5,460,883 (Barber) and Jia 6,270,5621 B1, for reasons of record.

### ***Response to Arguments***

Art Unit: 1774

5. Applicant's arguments filed May 13, 2003 have been fully considered but they are not persuasive.

Applicants argue that while Pollet discloses certain resin powders, nothing in Pollet discloses the use of 1) any organic hollow particles or 2) any composite particles as expressly defined in the instant application.

In response thereto, applicants are reminded of the election of species requirement in Paper No. 12 wherein the elected species was inorganic particles. Nevertheless, Pollet teaches that inorganic particulates such as metallic fillers can be used. Moreover, the teachings of Pollet at column 4, lines 5-8 that "these fillers can be pre-combined with the polymer so that each powder particle contains polymer and filler..." necessarily describes a "combination of two or more differing materials." In addition, if each powder particle contains polymer and filler, as taught by Pollet, the skilled artisan would reasonably presume that the fillers are either a) coated with the polymer or b) flocked on the surface of the polymer particle. Regardless of the specific structure, each powder particle of Pollet that contains polymer and filler "generally would have a hardness at their surface that is different from the hardness of the internal portions of the particle beneath." Accordingly, Pollet does teach composite particles as defined by the present application.

Applicants argue that nothing in Pollet describe any inorganic particles having a Mohs' hardness that does not exceed the Mohs' hardness of the glass fiber.

In this concern, claims 1 and 32 are nonspecific as to the Mohs' hardness of the glass fibers. In addition, Pollet teaches that the inorganic particulates can be metallic

fillers. This teaching inherently describes particles that have a Mohs' hardness value which does not exceed the Mohs' hardness value of the glass fibers.

Applicants argue that the combination of references is lacking of any objective teaching regarding the use of a plurality of particles as defined in independent claims 1 and 32 which set forth that the particles have a Mohs' hardness value which does not exceed the Mohs' hardness value of glass fiber and that the plurality of particles are chosen from inorganic particles, organic hollow particles and composite particles and mixtures of any of the foregoing (claim 1).

The examiner disagrees. As set forth previously, these claims are nonspecific as to the Mohs' hardness value of the glass fibers. Furthermore, Pollet specifically teaches a powdered coating containing inorganic particulates that can be metallic and a powdered coating comprising composite particulates. Clearly the disclosure of Pollet provides an objective teaching regarding the use of a plurality of particles as defined by claims 1 and 32. As to the teachings of Barber, he teaches filaments cores coated with inorganic particulate material, wherein the filament cores can be continuous glass fibers. It would have been obvious to the skilled artisan at the time the invention was made, in possession of the teachings of Pollet to choose and determine the specific particulate material commensurate with the desired properties of the end product. For example, it would have been obvious to substitute metallic particulates with boron nitride particles depending upon the desired conductivity of the end product. While Barber teaches abrasive filaments, the skilled artisan in possession of the prior art teachings of Pollet and Barber would have been motivated to use any of the particulate

materials taught by Barber with the reasonable expectation of obtaining filaments with increased surface areas if desired for the production of reinforced articles or in the formation of abrasive articles. Jia is relied upon for all that he would have reasonably imparted to the skilled artisan at the time the invention was made, namely that glass fibers of the type contemplated by applicants were well known in the art at the time the invention was made.

Applicants argue that the rejection set forth by the Examiner points to no specific objective teaching in any of the prior art references relied upon that would have led to the examiner's conclusion that "any inorganic particulate material known in the art" could have been used in the teachings of Pollet.

The examiner disagrees for the reasons set forth above by the examiner.

Applicants argue that with respect to independent claim 28, which recites that the plurality of particles are chosen from "organic hollow particles", the rejection apparently fails to take into account this recitation because it is not even alleged by the examiner that the resin powders of Pollet meet this recitation, and applicants submit that they do not.

In this regard, applicants are reminded of the election of species requirement wherein the elected species was the inorganic particles. As such, this claim currently is directed to a nonelected embodiment.

The examiner's position remains that the combined teachings of Pollet, Barber, and Jia would have rendered obvious the invention as claimed in claims 3, 6-11, 22-23, and 32-34.

Applicants have not clearly defined that which they regard as their invention. No claims are allowed.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 703.308.2381. The examiner can normally be reached on M-F 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 703.308.0449. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9310 for regular communications and 703.872.9311 for After Final communications.

Art Unit: 1774

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0651.

Jill M. Gray  
Examiner  
Art Unit 1774

JM  
July 28, 2003

CYNTHIA H. KELLY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700

